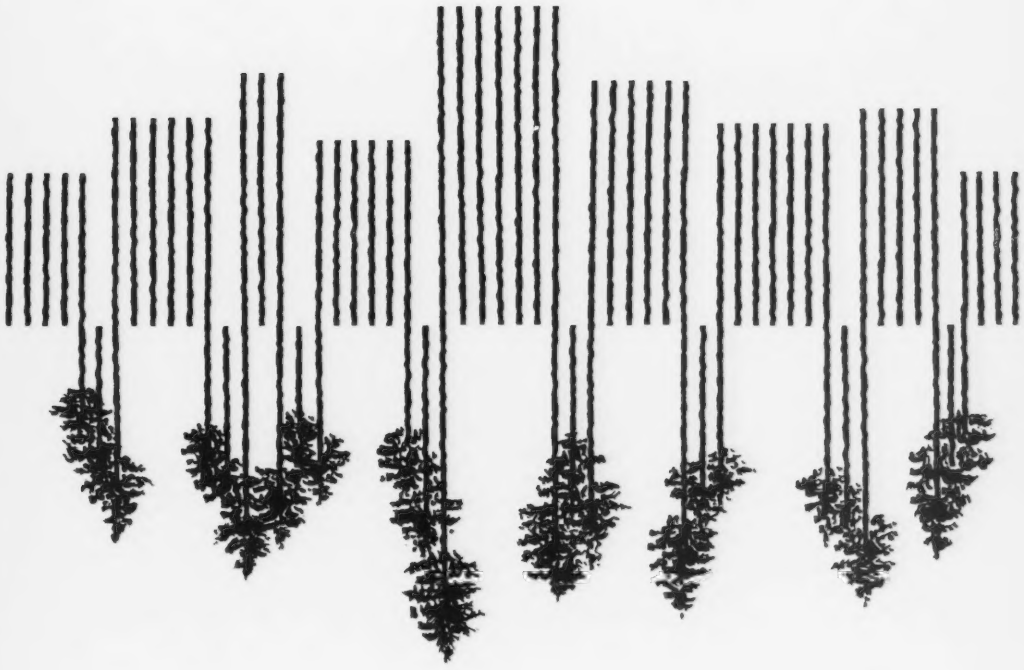
SOCIETY & NATURAL RESOURCES

AN INTERNATIONAL JOURNAL

RABEL J. BURDGE CO EDITORS-IN CHIEF DONALD R. FIELD

VOLUME 3 1990



TAYLOR & FRANCIS

NEW YORK • PHILADELPHIA • WASHINGTON, DC • LONDON

SOCIETY AND NATURAL RESOURCES

CO-EDITORS-IN-CHIEF

Rabel J. Burdge
University of Illinois
Urbana, IL, USA

Donald R. Field
University of Wisconsin
Madison, WI, USA

BOOK REVIEW EDITORS

Richard B. Norgaard
University of California
Berkeley, CA, USA

Lori-Ann Thrupp
World Resources Institute
Washington, DC, USA

POLICY REVIEWS EDITOR

William R. Burch, Jr.
Yale University
New Haven, CT, USA

ASSOCIATE EDITORS

John W. Bennett
Washington University
St. Louis, MO, USA

William R. Bentley
Winrock International Institute for Agricultural Development
Morrilton, AZ, USA

Barbara A. Brower
University of Texas
Austin, TX, USA

Janet Welsh Brown
World Resources Institute
Washington, DC, USA

Michael M. Cernea
World Bank
Washington, DC, USA

Paul J. Culhane
Northern Illinois University
De Kalb, IL, USA

Joseph E. DiSanto
The University of Calgary
Alberta, Canada

Riley E. Dunlap
Washington State University
Pullman, WA, USA

Charles G. Geisler
Cornell University
Ithaca, NY, USA

Craig K. Harris
Michigan State University
East Lansing, MI, USA

Robert G. Lee
University of Washington
Seattle, WA, USA

Kay Muir-Leresche
Hillcrest College
Mutare, Zimbabwe

Gary E. Machlis
University of Idaho
Moscow, ID, USA

Geoffrey McDonald
Griffith University
Brisbane, Queensland, Australia

Hisayoshi Mitsuda
Bukkyo University
Kitaku Kyoto, Japan

Nancy Lee Peluso
University of California
Berkeley, CA, USA

Eugene A. Rosa
Washington State University
Pullman, WA, USA

Sara Scherr
ICRAF
Nairobi, Kenya

Allan Schnaiberg
Northwestern University
Evanston, IL, USA

Gill Shepard
Regent's College
London, England

George Stankey
Oregon State University
Corvallis, OR, USA

C. Nicholas Taylor
Taylor and Associates
North Canterbury, New Zealand

David L. Uzzell
University of Surrey
Guildford, Surrey, England

Joanne Vining
University of Illinois
Urbana, IL, USA

Geoffrey R. Weller
Lakehead University
Thunder Bay, Ontario, Canada

EDITORIAL ADVISORY BOARD

Edward Blakely
University of California
Berkeley, CA, USA

Terry Daniel
University of Arizona
Tucson, AZ, USA

Sally K. Fairfax
University of California
Berkeley, CA, USA

Ramachandra Guha
Institute of Economic Growth
University Enclave
Delhi, India

Thomas A. Heberlein
University of Wisconsin
Madison, WI, USA

Helen Ingram
University of Arizona
Tucson, AZ, USA

Steven Kellert
Yale University
New Haven, CT, USA

Denton E. Morrison
Michigan State University
East Lansing, MI, USA

William Page
Project Appraisal
Guildford, Surrey, England

Dianne Rocheleau
Clark University
Worcester, MA, USA

Roy E. Rickson
Griffith University
Brisbane, Queensland, Australia

Barry Sadler
Victoria, BC, Canada

Abstracted and/or Indexed in: Environmental Periodicals Bibliography.

Publishing, Advertising, and Subscription Offices: Taylor & Francis, 1900 Frost Road, Suite 101, Bristol, PA 19007, (215) 785-5800, or Taylor & Francis Ltd., Rankine Road, Basingstoke, Hampshire RG24 0PR, England.

Editorial Office: Rabel J. Burdge, Institute for Environmental Studies, University of Illinois at Urbana-Champaign, 1101 W. Peabody Dr., Urbana, IL 61801 or Donald R. Field, School of Natural Resources, University of Wisconsin, Madison, WI 53706, USA.

SOCIETY & NATURAL RESOURCES (ISSN 0894-1920) is published quarterly by Taylor & Francis Ltd., 4 John Street, London WC1N 2ET, England. Annual 1990 subscription rate (Volume 3) UK £46, US $79. Personal subscription rate UK £25, US $42; available to home address only and must be paid for by personal check or credit card.

Application to mail at second-class postage rates pending at Jamaica, NY, 11431. **Postmaster:** Send address changes to SOCIETY AND NATURAL RESOURCES, Publications Expediting, Inc., 200 Meacham Avenue, Elmont, New York 11003. Airfreight and mailing in the USA by Publications Expediting, Inc., 200 Meacham Avenue, Elmont, New York 11003.

Dollar rates apply to subscribers in all countries except the UK and the Republic of Ireland, where the sterling price applies. All subscriptions are payable in advance and all rates include postage. Journals are sent by air to the USA, Canada, Mexico, India, Japan and Australasia at no extra cost. Subscriptions are entered on an annual basis, i.e., January to December. Payment may be made by sterling check, dollar check, international money order, National Giro, or credit card (AMEX, VISA, Mastercard/Access).

Orders originating in the following territories should be sent directly to:

Australia—R. Hill & Son, Ltd., Suite 2, 119 Gardenvale Road, Gardenvale, Victoria 3185, Australia.

India—Universal Subscription Agency Pvt. Ltd., 101-102 Community Centre, Malviya Nagar Extn., Post Bag No. 8, Saket, New Delhi.

Japan—Kinokuniya Company Ltd., Journal Department, P.O. Box 55, Chitose, Tokyo 156.

New Zealand—R. Hill & Son, Ltd., Private Bag, Newmarket, Auckland 1.

USA, Canada, and Mexico—Taylor & Francis, Inc., 1900 Frost Road, Suite 101, Bristol, PA 19007, USA.

UK and all other territories—Taylor & Francis Ltd., Rankine Road, Basingstoke, Hampshire RG24 0PR, England.

Copyright:
The appearance of the code at the top of the first page of each article in this journal indicates the copyright owner's consent that a single copy of the article may be made for personal use. This consent is given on the condition that for multiple copies of the article the copier pay a fee of $3.00 per copy through the Copyright Clearance Center, Inc., 27 Congress Street, Salem, MA 01970. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale. No part of this publication may be stored on an electronic retrieval system or transmitted electronically without the prior written permission of the publisher.

Copyright © 1990 Taylor & Francis

Printed in the UK by Burgess Science Press

Contents of Volume 3

NUMBER 1

Relationships Between Information Sources and Farmers' Conservation Perceptions and Behavior
Peter F. Korsching and Thomas J. Hoban, IV 1

Wildlife Attitudes of Early Adopters Who Own Forestland
Jacqueline L. Haymond 11

The Social Consequences of Protected Areas Development for Resident Populations
Kishore Rao and Charles Geisler 19

Extending Integrated Pest Management by Public Mandate: A Case Study from California
James I. Grieshop, Edward MacMullan, Stephen Brush, Carolyn Pickel, and Frank G. Zalom 33

Socioeconomic Impact of the Conservation Reserve Program in North Dakota
Timothy L. Mortensen, F. Larry Leistritz, Jay A. Leitch, Randal C. Coon, and Brenda L. Ekstrom 53

Local System Responses to Water Shortage
Thomas J. Hoban, IV 63

Policy Reviews:

Public Information and Education to Counter Resource Degradation in Scandinavia
James R. Fazio and Bjørn P. Kaltenborn 71

Protected Areas, Resident Peoples, and Sustainable Conservation: The Need to Link Top-down with Bottom-up
Stephen R. Brechin and Patrick W. West 77

Reducing Agricultural Sedimentation and Improving Water Quality: Suggestions for More Efficient and Effective Enforcement
Stephen B. Lovejoy 81

Book Reviews:

Abrahamson, ed. *The Challenge of Global Warming*
Hanna J. Cortner 87

Edelstein. *Contaminated Communities*
Vyner. *Invisible Trauma*
J. Stanley Black 88

Hunt and Huser. *Down by the River*
Sally K. Fairfax 92

Petulla. *Environmental Protection in the United States*
Ruth L. Love 94

Culhane et al. *Forecasts and Environmental Decisionmaking*
William R. Freudenberg 96
Stull and Schensul, eds. *Collaborative Research and Social Change*
Elsa M. Chaney 99
Juma. *Biological Diversity and Innovations*
Stephen B. Brush 100
Korten and Siy, eds. *Transforming a Bureaucracy*
Andrew Stone 102

NUMBER 2

Sustainable Small-Scale Agriculture in Small Caribbean Islands
Jerome L. McElroy and Klaus de Albuquerque 109

India's Deforestation: Patterns and Processes
Madhav Gadgil 131

Resource Availability and Indigenous Forest Management Systems in Nepal
D. A. Gilmour 145

Institutional Choice in Transboundary Pollution
M. L. Livingston and H. von Witzke 159

Diversity of Commercial Fisheries in the Canadian Great Lakes
Fikret Berkes and Dorothy Pocock 173

Policy Review:

Social Science and Forestry
Donald R. Field and William R. Burch, Jr. 187

Book Reviews:

Anderson and Huber. *The Hour of the Fox*
Susana B. C. Devalle 193
Bailey et al. *Indonesian Marine Capture Fisheries*
Marc L. Miller 194
Belzer and Kroll. *New Jobs for the Timber Region*
Emery N. Castle 197
Rocheleau et al. *Agroforestry in Dryland Africa*
Marilyn W. Hoskins 198
Mahar. *Government Policies and Deforestation in Brazil's Amazon Region*
Richard B. Norgaard 200
Blair and Olpadwala. *Forestry in Development Planning*
Chun K. Lai 201
Heiman. *Coastal Recreation in California*
Robert G. Lee 203
O'Toole. *Reforming the Forest Service*
Jonathan Kusel 204
Regional Wood Energy Development Programme in Asia of the FAO.
Planning Forestry Extension Programmes
Sara J. Scherr 206
FAO. *Case Studies of Farm Forestry and Wasteland Development in Gujarat, India.*
FAO. *Forestland for the People.*
Panya et al. *Charcoal in Northeast Thailand*
Carol Ireson 207
Westoby. *Introduction to World Forestry*
A. J. Leslie 209

NUMBER 3

Underselling National Parks in Zimbabwe: The Implications for Rural Sustainability
Graham F. T. Child and Robin A. Heath 215

National Park and Equivalent Reserve Creation in French and British Africa
G. W. Burnett and Heather B. Stilwell 229

Environmental Initiatives in Costa Rica: A Political Ecology Perspective
Lori Ann Thrupp 243

Is Community Forestry a New Concept? An Analysis of the Past and Present Policies Affecting Forest Management in Nepal
J. Adhikari 257

Policy Reviews:

The Tension between Local and National Conservation Groups in the Democratic Regime
Gary E. Machlis 267

The Greater Yellowstone Ecosystem Policy Arena
Tim W. Clark and Ann H. Harvey 281

Book Reviews:

Massey. *Subsistence and Change*
Harold G. Marcus 289
Bodley. *Tribal Peoples and Development Issues*
Elizabeth Colson 286
Downs and Reyna, eds. *Land and Society in Contemporary Africa*
Sally Falk Moore 288
Skjønsberg. *Change in an African Village*
Jeanne L. Bergman 290
Johnson and Anderson, eds. *The Ecology of Survival*
P. T. W. Baxter 292
Ives and Messerli. *The Himalayan Dilemma*
Thompson et al. *Uncertainty on a Himalayan Scale*
Drake Hocking 293
Mortimore. *Adapting to Drought*
Mark Schoonmaker Freudenberger 297

NUMBER 4

The Quest for Environmental Equity: Mobilizing the African-American Community for Social Change
Robert D. Bullard and Beverly H. Wright 301

A "Good Business Climate" as Bad Economic News?
William R. Freudenberg 313

The Impact of Knowledge and Values on Perceptions of Environmental Risk to the Great Lakes
Brent S. Steel, Dennis L. Soden, and Rebecca L. Warner 331

Cultural and Biological Diversity at Canyon de Chelly National Monument, Arizona
Teresa N. Stoker 349

Agroecological and Policy Influences on No-Till Adoption
T. J. Makowski, A. J. Sofranko, and J. C. Van Es 361

Review Article:

The Ethics of Ennoblement: A Review of Leopold on Leisure and of Callicott on Leopold
Keith Hollinshead 373

Policy Review:

Wildland Resource Values: A Struggle for Balance
Alan Ewert 385

Traveling Scholar:

Urban Forestry Administration in The Netherlands
Terence J. Tipple, J. Douglas Wellman, and Gary C. Wamsley 395

Book Reviews:

Rodman. *Deep Water*
Bonnie J. McCay 405
Lipschutz. *When Nations Clash*
Kristin Shrader-Frechette 406
Israel. *Institutional Development*
William J. Siffin 408
Newsday. Rush to Burn
Robert D. Bullard 409
Pinkerton. *Co-operative Management of Local Fisheries*
M. D. Olson 411
Chambers et al. *Farmer First*
Ann Stroud 412

Following page 414:
Title page to Volume 3
Contents of Volume 3
Author index to Volume 3

Society and Natural Resources is abstracted and/or indexed in the Environmental Periodicals Bibliography.